REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1-19 are pending.

I. Rejection under 35 U.S.C. § 102

In the Office Action, at page 2, claims 2-4, 6-8, 10-14, 17 and 18 were rejected under 35 U.S.C. § 102(a) as being unpatentable over Korean Patent Pub. No. 2002-0057012. This rejection is respectfully traversed because KR '012 does not suggest:

> a connector connecting the output shaft and the lower kneading drum;...
>
> an engager connecting one side of the lower pulley to the connector,
>
> wherein the engager comprises a plurality of engaging projections projected in a radial direction relative to an axis of the output shaft on an outer surface of the connector, and
>
> a plurality of projections accommodating grooves formed in the lower pulley to accommodate the plurality of engaging projections, and
>
> wherein, when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft,

as recited in independent claim 2.

KR '012 shows an upper pulley including a driving shaft 28, a driving belt 27, a wheel 57 with projections 78, 79, and an output shaft 51 engagable with the wheel 57. First, KR '012 does not show a lower pulley to which an engager is connected. KR '012 does not show an engager and does not suggest that an engager is connected to one side of a lower pulley. Further, KR '012 does not show or suggest that an engager includes a plurality of engaging projections and a plurality of projections accommodating grooves formed in the lower pulley to accommodate the engaging projections. While the Examiner includes no indication of the features of KR '012 that may be construed to correspond with engaging projections and accommodating grooves, even assuming, *arguendo*, that the projection 78, 79 of the wheel 57 could be construed to be engaging projections and the spaces between elements 63a, 63b, 65a and 65b could be construed to be accommodating grooves, the spaces between elements 63a, 63b, 65a and 65b are not formed in a lower pulley. The spaces are not formed in either the upper or the lower

pulley and the spaces between elements 63a, 63b, 65a and 65b are not formed in a pulley at all, but appear to abut against a wall of the bread maker.

Further, KR '012 does not show, discuss or suggest that "when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft," as recited in independent claim 2. Further, the Examiner includes no discussion of how KR '012 discloses such.

With regard to the Examiner's argument regarding functional distinctions, it is respectfully submitted that the Examiner must consider the limitation, even assuming, *arguendo*, that the limitation does not provide any additional structure. There is nothing intrinsically wrong with the use of functional claim language. *In re Swinehart and Sfiligoj*, 169 USPQ 226 at 228. "A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used," e.g., a functional limitation may be used to functionally define a particular capability or purpose that is served by the recited element. MPEP § 2173.05(g) ("[i]n a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned" and "portions . . . being resiliently dilatable whereby said hosing may be slidably positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly.")

However, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *Id.* at 229. It can be inferred from *In re Swinehart and Sfiligoj* that functional distinctions can distinguish over the prior art, provided that the Applicant can prove the prior art does not possess the relied-upon feature. There is no indication in the KR '012 disclosure that an engager transmits a same level of torque from an output shaft to a lower pulley regardless of the relative positions of projections and accommodating grooves along the axis of the output shaft when the projections are accommodated by the accommodating grooves. Thus, there is no indication that KR '012 meets the features recited in independent claim 2 as to transmitting a same level of torque. Accordingly, KR '012 does not suggest all the features of independent claim 2.

Therefore, as KR '012 does not discuss or suggest "a connector connecting the output shaft and the lower kneading drum;...an engager connecting one side of the lower pulley to the connector, wherein the engager comprises a plurality of engaging projections projected in a radial direction relative to an axis of the output shaft on an outer surface of the connector, and a plurality of projections accommodating grooves formed in the lower pulley to accommodate the plurality of engaging projections, and wherein, when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft," as recited in independent claim 2, claim 2 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(a) rejection is respectfully requested.

Further, KR '012 does not discuss or suggest that "the engager includes a plurality of engaging projections projected in a radial direction relative to an axis of the output shaft on an outer surface of the connector and a plurality of projections accommodating grooves formed in the first pulley to accommodate the engaging projections, and wherein, when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft," as recited in independent claim 6. Therefore, claim 6 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(a) rejection is respectfully requested.

In addition, KR '012 does not discuss or suggest "an engager between the connector and the first pulley, the engager including a plurality of engaging projections projecting in a radial direction on an outer surface side of the connector, and a plurality of projections accommodating grooves provided at corresponding positions of the first pulley to accommodate the engaging projections of the connector,...wherein, when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft," as recited in independent claim 10. Therefore, claim 10 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the § 102(a) rejection is respectfully requested.

Claims 3, 4, 7, 8, 11-14 depend either directly or indirectly from independent claims 2, 6 and 10 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 3

recites that "three engaging projections are uniformly distributed on the outer surface of the connector." Therefore, claims 3, 4, 7, 8, 11-14 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(a) rejection is respectfully requested.

III. Rejection under 35 U.S.C. § 103

In the Office Action, at page 3, claims 2-4, 6-8, 10-14, 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,590,850 to Hedenberg in view of U.S. Patent No. 3,687,251 to Hoerner.

The combination of the teachings of Hedenberg and Hoerner additionally does not suggest the features of independent claims 2, 6 and 10.

Hedenberg discusses an apparatus for making food products such as bread, including upper and lower pulleys. As conceded by the Examiner, Hedenberg does not discuss or suggest that an engager connecting one side of a lower pulley to a connector includes a plurality of engaging projections which are projected in a radial direction relative to an axis of an output shaft on an outer surface of the connector and that a plurality of projections accommodating grooves are formed in the lower pulley to accommodate the plurality of engaging projections. Further, as conceded by the Examiner, Hedenberg does not discuss or suggest that when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from an output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft.

The Examiner indicates that Hoerner makes up for the deficiencies in Hedenberg, alleging that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided Hedenberg with an engager connecting one side of the pulley to the connector in the manner suggested by Hoerner, in order to assure that driving force is accurately transmitted, if desired." The Applicants respectfully disagree.

Hoerner discusses a torque transmitting device including a first torque transmitting member 12 and a second interfitting torque transmitting member 14. A plurality of fibers 22 are secured to one of the torque transmitting surfaces of the torque transmitting members 12, 14, and a plurality of projections circumferentially spaced with respect to the common axis of the cylinders 12 and 14 extend from the other of the torque transmitting surfaces to be engaged by the free ends of the fibers 22.

While Hoerner does show a torque transmitting device in which projections are fitted within fibers 22 extending from the surface of one of the torque transmitting members 12, 14, the "motivation" cited by the Examiner is entirely inadequate to suggest combining the features of the bread-making apparatus including pulleys of Hedenberg with the torque transmitting device of Hoerner. Assuring that driving force is accurately transmitted is a reason to use a torque transmitting device, but one of ordinary skill in the art knowing that driving force may be accurately transmitted does not suggest why the torque transmitting device of Hoerner would be incorporated into the breadmaker of Hedenberg. The Examiner provides no motivation to suggest why the torque transmitting device would particularly be incorporated into the system of Hedenberg. In fact, "to assure that driving force is accurately transmitted" is not a motivation or suggestion as to how to combine the references, but is a result of what the Examiner expects may occur if the devices are combined.

In addition, neither Hedenberg nor Hoerner discuss or suggest that when the projections are accommodated by the accommodating grooves, the engager transmits a same level of torque from the output shaft to the lower pulley regardless of the relative positions of the projections and the accommodating grooves along the axis of the output shaft. The Examiner indicates that this is a recitation of intended use. It is respectfully submitted that the Examiner must consider the limitation, even assuming, *arguendo*, that the limitation does not provide any additional structure. There is nothing intrinsically wrong with the use of functional claim language. *In re Swinehart and Sfiligoj*, 169 USPQ 226 at 228. However, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *Id.* at 229.

In asserting an intended use argument, if a prior art structure is capable of performing the intended use as recited..., then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). However, the prior art structure must be able to perform the intended use. Thus, either Hedenberg or Hoerner, alone or in combination, must be enabled to accomplish the claimed functional language of the present invention as set forth in claim 2, for example.

Specifically, the combination of the teachings of Hedenberg and Hoerner does not provide sufficient enablement to suggest that an engager connected to a side of a lower pulley is able to transmit a same level of torque from an output shaft to the lower pulley regardless of the

relative positions of the projections and the accommodating grooves along the axis of the output shaft when the projections are accommodated by the accommodating grooves. Further, the cited motivation is not sufficient to suggest combining the teachings of Hedenberg and Hoerner to one of ordinary skill in the art to accomplish the claimed functional language of claim 2. There is no indication, based on the motivation cited, of why one of ordinary skill in the art would be led to combine the bread-making apparatus of Hedenberg with the torque transmitting device of Hoerner to suggest transmitting a same level of torque from an output shaft to a lower pulley regardless of relative positions of projections accommodated into accommodating grooves.

Therefore, as the combination of the teachings of Hedenberg and Hoerner does not suggest all the features of independent claims 2, 6 and 10, claims 2, 6 and 10 patentably distinguish over the references relied upon. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 3, 4, 7, 8, 11-14 depend either directly or indirectly from independent claims 2, 6 and 10 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 4 recites that "the reduction gear includes a worm connected to a shaft of the driving motor and a worm wheel engaged with the worm, and a gear case accommodating the worm and the worm wheel." Therefore, claims 3, 4, 7, 8, 11-14 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Conclusion

In accordance with the foregoing, claims 1-19 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

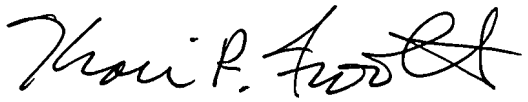
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: September 7, 2007

By: 

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